

A process for preparing a bleached sulfite chemical pulp includes delignification of chips of a lignocellulosic material in a sulfite pulping process until the defibration point of the material is reached, and bleaching of the fibrous material thus obtained by a chlorine-free bleaching sequence which includes at least one first bleaching step with a chlorine-free oxidant in the presence of a base. The chemical pulp prepared according to this process and paper or nonwoven made from such pulp have a high degree of brightness (at least 83% ISO) and high strength.